

1/3

PUBLICATION NUMBER : 60055640

PUBLICATION DATE : 30-03-85

APPLICATION DATE : 07-09-83

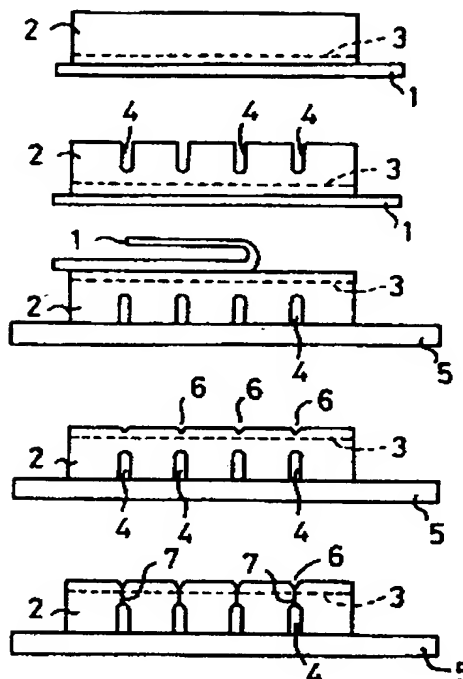
APPLICATION NUMBER : 58165400

APPLICANT : TOTTORI SANYO ELECTRIC CO LTD;

INVENTOR : TAKASU HIROMI;

INT.CL. : H01L 21/78

TITLE : SPLITTING METHOD FOR COMPOUND SEMICONDUCTOR SUBSTRATE



ABSTRACT : PURPOSE: To obtain elements having nearly vertical end surfaces in which burrs or cracks do not generate and the substrate does not unexpectedly break during handling by a method wherein cutting grooves are formed from the back side of the semiconductor substrate having a light emitting junction on the surface side, and scribe lines being provided in the surface corresponding to the cutting grooves, and the substrate being then split by application of pressure to the substrate.

CONSTITUTION: The substrate 2 of compound semiconductor is adhered and fixed on a sheet 1 with the light emitting junction 3 side, i.e. the surface downward, and the cutting grooves 4, 4... of a depth of the degree out of the reach of the junction 3 are provided lengthwise and crosswise from the back surface with a dicing saw. Next, the back side is adhered to a sheet 5 for expanding and then held, and the surface side sheet 1 is stripped. Then, points of the surface corresponding to the cutting grooves 4, 4... are provided with scribe lines 6, 6... by means of a diamond cutter, etc. The substrate 2 breaks by application of pressure from the back of the sheet 5 with a metal roller, etc.; however, cutting surfaces 7 at this time become nearly vertical according as cleavage advances.

COPYRIGHT: (C)1985,JPO&Japio

